GRAPHICAL ABSTRACTS

Tetrahedron, **1994**, *50*, 13335

Enantiospecific Synthesis of [(2'S, 3'S)-Bis(hydroxymethyl) azetidin-1-yl] Pyrimidine Nucleosides as Potential Antiviral Agents

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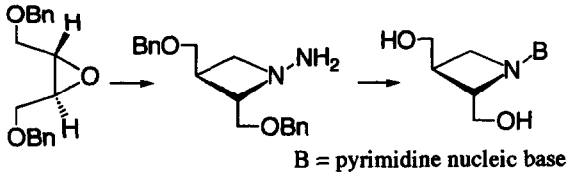

B = pyrimidine nucleic base

Tetrahedron, **1994**, *50*, 13347

Absolute Configuration of Main Chain of AAL-toxins.

Hideaki Oikawa,*,[a] Isamu Matsuda,[a] Takashi Kagawa,[a] Akitami Ichihara,*,[a] and Keisuke Kohmoto[b]
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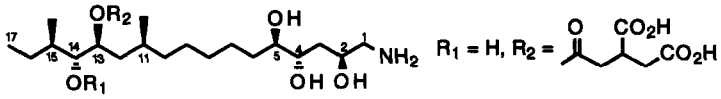
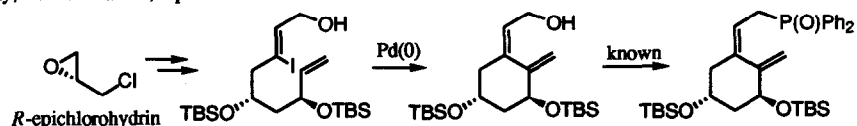


AAL-toxin TA_1

Tetrahedron, **1994**, *50*, 13369

An Efficient Route to a Key A-Ring Synthon for 1α,25-Dihydroxyvitamin D_3 and its Analogs

Susumi Hatakeyama,[a]* Hiroshi Irie,[a] Takashi Shintani,[b] Yohko Noguchi,[b] Hidetoshi Yamada,[b] and Mugio Nishizawa[b]
[a]Faculty of Pharmaceutical Sciences, Nagasaki University, Nagasaki 852, Japan [b]Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Tokushima 770, Japan



R-epichlorohydrin

A-ring synthon of VD_3s

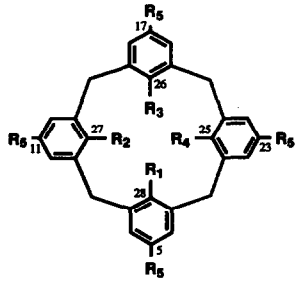
Tetrahedron, **1994**, *50*, 13377

Combined NMR Spectroscopy and Molecular Mechanics Studies of OH-Depleted Calix[4]arenes: On the Influence of OH Groups on the Relative Stability of Calix[4]arene Conformers

Takaaki Harada, Fumio Ohseto and Seiji Shinkai*

Chemirecognics Project, ERATO, Research Development Corporation of Japan, Aikawa 2432-3, Kurume, Fukuoka 830, Japan

The effects of OH groups on the relative stabilities and the structures of four conformers of OH-depleted calix[4]arenes (**0a–4b**) are discussed on the basis of a computational method using molecular mechanics (MM3(92)) calculations. The results are compared with various NMR spectroscopic experiments.



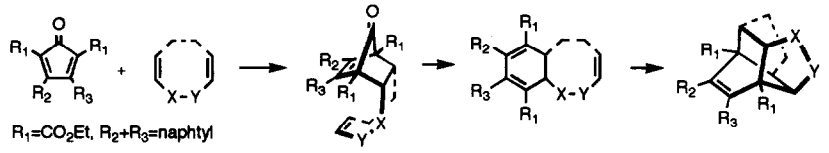
	R_1	R_2	R_3	R_4	R_5
0a	OH	OH	OH	OH	H
1a	H	OH	OH	OH	H
2a	H	OH	H	OH	H
2'a	H	H	OH	OH	H
3a	H	H	H	OH	H
4a	H	H	H	H	H
0b	OH	OH	OH	OH	Bu^t
1b	H	OH	OH	OH	Bu^t
2b	H	OH	H	OH	Bu^t
2'b	H	H	OH	OH	Bu^t
3b	H	H	H	OH	Bu^t
4b	H	H	H	H	Bu^t

Tetrahedron, **1994**, *50*, 13395

Sequential Pericyclic Reactions of Cyclopentadienone with Nonconjugated Dienes. Intramolecular Cycloaddition Reactivity of the Decarbonylated Primary Cycloadducts and X-ray Structure of DDA Adduct

Masashi Eto, Takashi Aoki and Kazunobu Harano*, Fac. of Pharm. Sci., Kumamoto Univ., 5-1 Oe-honmachi, Kumamoto 862, Japan.

Pericyclic reactions of 2-oxo-1,3-bis(ethoxycarbonyl)-2*H*-cyclopenta[*a*]acenaphthylene with nonconjugated dienes were investigated.

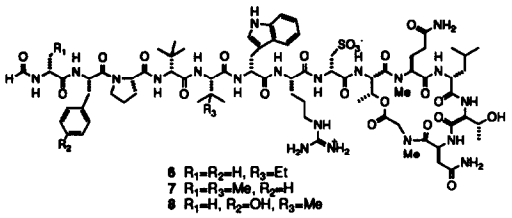


Tetrahedron, **1994**, *50*, 13409

Discodermins F-H, Cytotoxic and Antimicrobial Tetradecapeptides from the Marine Sponge *Discodermia kiiensis*: Structure Revision of Discodermins A-D.

Geonseek Ryu, Shigeki Matsunaga, and Nobuhiro Fusetani*
Laboratory of Marine Biochemistry, Faculty of Agriculture,
The University of Tokyo, Bunkyo-ku, Tokyo 113, JAPAN

Three new cytotoxic and antimicrobial peptides, discodermins F-H (**6-8**), have been isolated from the marine sponge *Discodermia kiiensis*. The structures of **6-8** were determined by interpretation of spectral data and chemical degradation. Structures of discodermins A-D were revised on the basis of NMR data and sequence analysis.

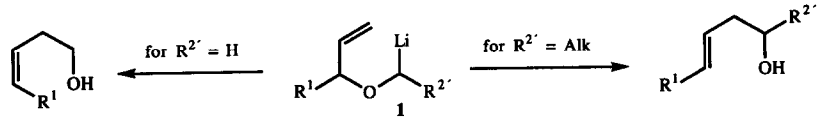


Tetrahedron, **1994**, *50*, 13417

THE [2,3]-WITTIG REARRANGEMENTS OF LITHIOALKYL ALLYL ETHERS EXHIBIT DIFFERENT *CIS,TRANS*-SELECTIVITIES THAN [2,3] SHIFTS IN THEIR LITHIOMETHYL ANALOGUES

*Petra Keiner and Reinhard Brückner**
Institut für Organische Chemie der Georg-August-Universität, Tammannstr. 2, D-37077 Göttingen, Germany

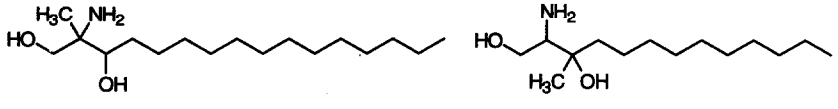
The lithiated allyl ethers **1** undergo Wittig rearrangements with substituent-dependent stereoselectivities ($R^{2'}$ = H, Me, Et, iPr; R^1 = CH_2-CH_2-*p*-C_6H_4-OMe).



Tetrahedron, **1994**, *50*, 13425

Synthesis of Sphinganine Analogues modified in the Head Group

Thomas Kolter, Gerhild van Echten-Deckert, Konrad Sandhoff
Institut für Organische Chemie und Biochemie der Universität Bonn, Germany

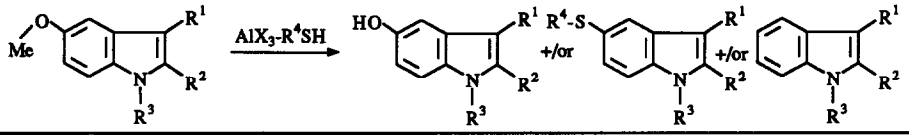


Functionalisation of the alkoxy group of alkyl aryl ethers. Demethylation, alkylthiolation and reduction of 5-methoxyindoles

Tetrahedron, **1994**, *50*, 13433

Catherine Caubère,† Paul Caubère,† Pierre Renard,‡ Jean-Guy Bizot Espiart,‡ Sandra Ianelli,# Mario Nardelli,# Brigitte Jamart-Grégoire*†

†Laboratoire de Chimie Organique I, URA CNRS 457, INCM FU CNRS 0008, Faculté des Sciences,Université Henri Poincaré, Nancy I, BP 239, F-54506 Vandoeuvre-les-Nancy, France. #Istituto di Chimica Generale, Università degli Studi di Parma, Centro di Studio CNR per la Strutturistica Diffrattometrica, Viale delle Scienze, I-43100 Parma, Italy. ‡ADIR, 1 rue Carle Hebert, F-92415 Courbevoie, France



SYNTHESIS OF ISOFAGOMINE, A NOVEL GLYCOSIDASE INHIBITOR

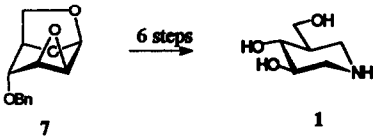
Tetrahedron, **1994**, *50*, 13449

Tina M. Jespersen*, Mikael Bols*, Troels Skrydstrup and Michael R. Sierks*****

* Department of Organic Chemistry, The Technical University of Denmark, Building 201, DK-2800 Lyngby, Denmark

** Laboratoire de Biochimie Structurale, Universite d'Orleans, URA 499, BP 6759, F-45067, Orleans, Cédex 2, France.

*** Department of Chemical and Biochemical Engineering, University of Maryland, Baltimore County, Baltimore MD 21228-5398,USA



7 1

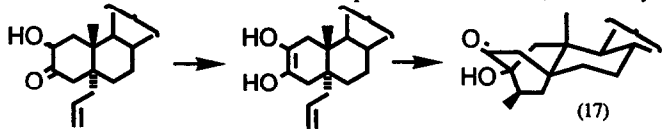
The potent glycosidase inhibitor isofagomine (1), was prepared in a six step synthesis starting from 1,6:2,3-dianhydro-4-*O*-benzyl-β-D-mannopyranose (7) in an overall yield of 34%.

THE INTRAMOLECULAR ENE REACTION OF 5-(PROP-2-ENYL)-2ξ-HYDROXY-5α-CHOLESTAN-3-ONE

Tetrahedron, **1994**, *50*, 13461

Brian A. Marples and Christopher D. Spilling, Department of Chemistry, The University of Technology, Loughborough, Leics. UK

The primary product of intramolecular ene reaction of the title compound at 110°C is the 2,5-ethano-2-hydroxy-3-ketone (17).



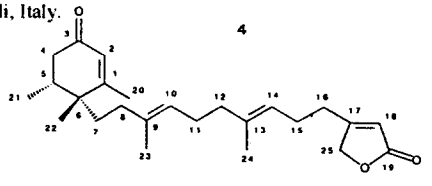
(17)

Structure and Absolute Stereochemistry of Cyclolinteinone a Novel Monocarbocyclic Sesterterpene from *Cacospongia* cf. *linteiformis*

Tetrahedron, **1994**, *50*, 13469

Maria R. Conte[a], Ernesto Fattorusso[a]*, Virginia Lanzotti[b], Silvana Magno[a], Luciano Mayol[a]

[a]Dipartimento di Chimica delle Sostanze Naturali, Via D. Montesano 49, 80131 Napoli, Italy.
[b]Dipartimento di Scienze e Tecnologie Agroalimentari, Ambientali e Microbiologiche, Via Tiberio 21, 86100 Campobasso, Italy



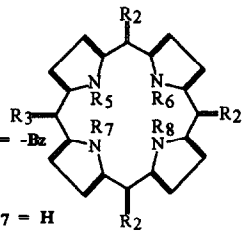
Cyclolinteinone (**4**), a novel sesterterpene based on an unprecedented skeleton, has been isolated from *C. cf.linteiformis*. A biogenetic pathway for this compound,which possesses antifeedant properties and high ichthyotoxicity, is proposed.

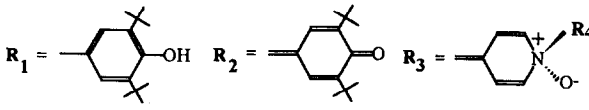
Tetrahedron, **1994**, *50*, 13477

ALKYLATION OF 5,10,15-TRIS(3,5-DI-*t*-BUTYL-4-HYDROXY-PHENYL)-20-(4-PYRIDYL)PORPHYRIN.

Lionel R. Milgrom,* Jonathan P. Hill, and Phillip J.F. Dempsey
Dept. of Chemistry, Brunel University, Uxbridge, Middlesex, UB8 3PH, UK.

The title porphyrin alkylates at the pyridine nitrogen with heptyl, benzyl, and 4-nitrobenzyl bromides. With benzyl bromide, oxidation led to further alkylation on the macrocycle and N-oxide formation on the 4-benzylpyridyl group.

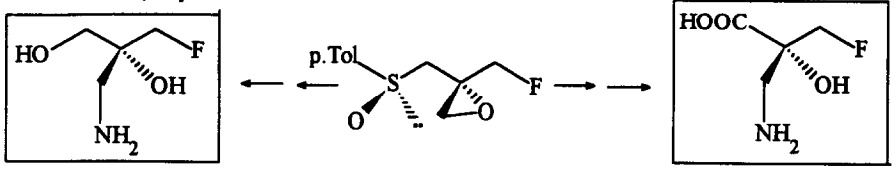




Tetrahedron, **1994**, *50*, 13485

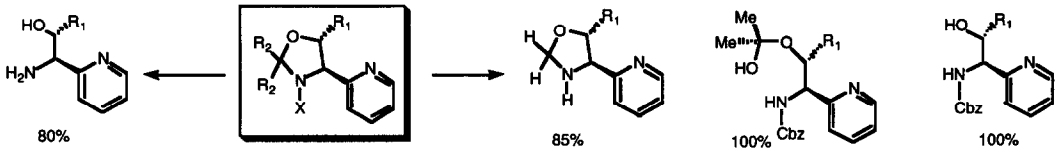
SYNTHETICALLY USEFUL C-4 FLUORINATED BUILDING BLOCKS BEARING A QUATERNARY STEREOCENTRE.

Alberto Arnone, Pierfrancesco Bravo, Massimo Frigerio, Giuliana Salani, and Fiorenza Viani
C.N.R. - Centro di Studio sulle Sostanze Organiche Naturali - Dipt. di Chimica del Politecnico di Milano - Via Mancinelli 7, I - 20131 Milano, Italy



Tetrahedron, **1994**, *50*, 13493

Chiral Ligands Containing Heteroatoms:13. Optically Active 4-(2'-Pyridyl)-1,3-oxazolidines: an Improved Synthesis of 2-(2'-Pyridyl)-2-aminoalcohols. Sandra Conti,* Sergio Cossu,* Giampaolo Giacomelli, and Massimo Falorni. Dipartimento di Chimica, Università degli Studi di Sassari, Via Vienna 2, I-07100 Sassari, Italy.

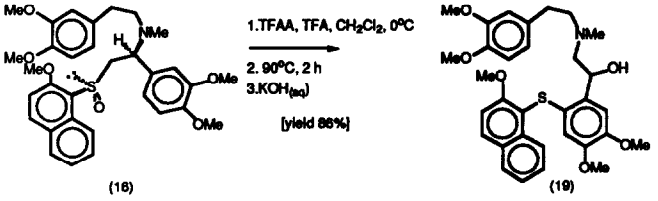


Tetrahedron, **1994**, *50*, 13501

An Unexpected Rearrangement of a β-Amino Sulfoxide under Pummerer Reaction Conditions

Stephen G. Pyne,* and A. R. Hajipour, *Department of Chemistry, University of Wollongong, Wollongong, NSW, 2522, Australia*

Pummer reaction of (16) gave the unexpected alcohol (19).



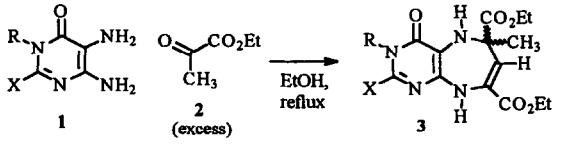
(16) (19)

Tetrahedron, **1994**, *50*, 13511

FACILE PREPARATION OF 9-*H*-PYRIMIDO[4,5-*b*][1,4]DIAZEPINE DERIVATIVES FROM 4,5-DIAMINOPYRIMIDINES AND ETHYL PYRUVATE

M. Melguizo, A. Sánchez, M. Nogueras (Depto. Química Inorgánica y Orgánica, Fac. Ciencias Experimentales, Univ. Jaén. E-23071 Jaén, Spain); J. N. Low (Dept. Applied Physics and Electronics & Mechanical Engineering, Univ. Dundee. DD1 4HN, Scotland). R. A. Howie (Dept. Chemistry, Univ. Aberdeen. Meston Walk, Old Aberdeen. Aberdeen, AB9 2UE, Scotland); G. Andrei, E. De Clercq (Rega Institute for Medical Reseach, Katholieke Universiteit Leuven. B-3000 Leuven, Belgium).

Several 9-*H*-pyrimido[4,5-*b*][1,4] diazepine derivatives, **3** (R = H, CH_3; X = SCH_3, OCH_3, NH_2, OH), were easily prepared from the 4,5-diaminopyrimidines **1** and ethyl pyruvate, **2**. Single crystal X-ray diffraction analysis of one of compounds **3** is presented. Antitumor and antiviral tests were performed with the newly synthesized compounds.

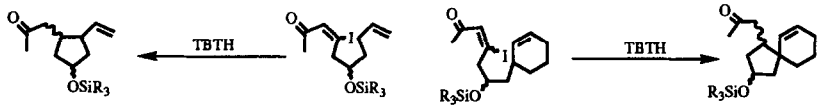


1 2 (excess) 3

Tetrahedron, **1994**, *50*, 13523

A FREE RADICAL APPROACH TO CYCLOPENTANONE AND SPIROCYCLIC SYSTEMS: DEVELOPMENT OF A 1,5 ALLYLIC ABSTRACTION- CYCLISATION SEQUENCE

Philip. J. Parsons[1] and Stephen Caddick[2] ; 1. Department of Chemistry, University of Reading, Whiteknights, Reading RG6 2AD; 2. School of Chemistry and Molecular Sciences, University of Sussex, Falmer, Brighton, BN1 9QJ

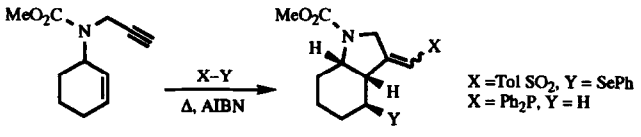


Tetrahedron, **1994**, *50*, 13533

RADICAL CYCLISATIONS OF DIENES AND ENYNES USING PHOSPHORUS AND SULFUR-CENTRED RADICALS

Julie Brumwell and Nigel S. Simpkins*, Department of Chemistry, University of Nottingham University Park, Nottingham NG7 2RD, UK, and Nicholas K. Terrett, Pfizer Central Research, Sandwich, Kent CT13 9NJ, UK

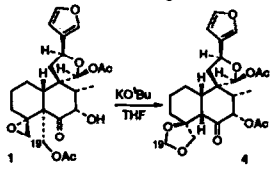
Reaction of a number of 1,6-diene or enyne systems with $TolSO_2SePh$ or Ph_2PH, under free radical conditions, results in cyclisation to give a variety of sulfone and phosphine containing products.



Tetrahedron, **1994**, *50*, 13553

SOME REMARKABLE REACTIONS OF THE DITERPENE ERIOCEPHALIN: *NEO*-CLERODANE DERIVATIVES WITH INSECT ANTIFEEDANT ACTIVITY

M. C. de la Torre[a], G. Domínguez[a], B. Rodríguez*[a], A. Perales[b], M. S. J. Simmonds[c] and W. M. Blaney[d]
Institutos de Química Orgánica[a] and Rocasolano[b], CSIC, Madrid, Spain; [c]Royal Botanic Gardens, Kew, U.K.; [d]Birkbeck College, London, U.K.



1 4

Eriocephalin (1) gave 4, the methylenedioxy moiety of which arises from formaldehyde generated in the loss of the C-19 carbon of 1. The antifeedant activity of some derivatives of 1 is reported.